

PART 70 OPERATING PERMIT
Office of Air Quality
and
CITY OF EVANSVILLE EPA

Guardian Automotive Trim, Inc.
601 North Congress Avenue
Evansville, Indiana 47715

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T163-6502-00017	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: January 19, 1999
First Administrative Amendment: 163-11080	Issuance Date: July 26, 1999
Second Administrative Amendment: 163-11523	Issuance Date: November 29, 1999
First Significant Permit Modification No.: 163-11558-00017	Issuance Date: February 14, 2000
Third Administrative Amendment 163-11681-00017	Issuance Date: February 15, 2000
Second Significant Source Modification No.: SSM163-12662	Sections Modified: A.2, D.5 Pages Added: 4, 40d, 40e, 42a, 42b
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:

TABLE OF CONTENTS

A SOURCE SUMMARY

- A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]
- A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
- A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
- A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

B GENERAL CONDITIONS

- B.1 Permit No Defense [326 IAC 2-1-10] [IC 13]
- B.2 Definitions [326 IAC 2-7-1]
- B.3 Permit Term [326 IAC 2-7-5(2)]
- B.4 Enforceability [326 IAC 2-7-7(a)]
- B.5 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]
- B.6 Severability [326 IAC 2-7-5(5)]
- B.7 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]
- B.8 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)]
- B.9 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]
- B.10 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)]
- B.11 Annual Compliance Certification [326 IAC 2-7-6(5)]
- B.12 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3)and (13)][326 IAC 2-7-6(1)and(6)]
- B.13 Emergency Provisions [326 IAC 2-7-16]
- B.14 Permit Shield [326 IAC 2-7-15]
- B.15 Multiple Exceedances [326 IAC 2-7-5(1)(E)]
- B.16 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]
- B.17 Permit Modification, Reopening, Revocation and Reissuance, or Termination
- B.18 Permit Renewal [326 IAC 2-7-4]
- B.19 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]
- B.20 Permit Revision Under Economic Incentives and Other Programs
- B.21 Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-7-20(b)]
- B.22 Operational Flexibility [326 IAC 2-7-20]
- B.23 Construction Permit Requirement [326 IAC 2]
- B.24 Inspection and Entry [326 IAC 2-7-6(2)]
- B.25 Transfer of Ownership or Operation [326 IAC 2-1-6] [326 IAC 2-7-11]
- B.26 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

C SOURCE OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- C.1 Particulate Matter Emission Limitations For Processes with Process Weight Rates
- C.2 Opacity [326 IAC 5-1]
- C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]
- C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
- C.5 Fugitive Dust Emissions [326 IAC 6-4]
- C.6 Operation of Equipment [326 IAC 2-7-6(6)]
- C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

Testing Requirements [326 IAC 2-7-6(1)]

- C.8 Performance Testing [326 IAC 3-6]

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

- C.9 Compliance Schedule [326 IAC 2-7-6(3)]
- C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]
- C.11 Monitoring Methods [326 IAC 3]

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

- C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]
- C.14 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5]
- C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)]
- C.17 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]
- C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)]
- C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

Stratospheric Ozone Protection

- C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

- D.1 FACILITY OPERATION CONDITIONS - One (1) Department 23 high gloss robotic spray coating line (U23-1), one (1) Department 23 low gloss robotic spray coating line, (U23-2), One (1) Department 13 (formerly Department 14) air atomization hand spray coating booth (formerly 14-1B), three (3) Department 13 automatic paint machines, one (1) Department 13 hand spray coating line (U13-1), one (1) Department 13 air atomization hand spray coating booth (U13-2), one (1) Department 13 air atomization hand spray coating booth (U13-3), one (1) Department 13 air atomization hand spray coating booth (U13-4), one (1) Department 13 air atomization hand spray coating booth (U13-5), one (1) Department 13 air atomization hand spray coating booth (U13-6), one (1) Department 22 robotic spray coating line (U22R-1), one (1) Department 22 robotic spray coating line (U22R-2), one (1) Department 20 paint line (U20-1), one (1) Department 20 paint line (U20-2), one (1) Department 20 paint line (U20-3), one (1) Department 20 air atomization spray booth (U20-4), one (1) Department 22 robotic spray coating line (U22R-3), two (2) air atomization spray coating booths (formerly 20C-6B and 20C-7B), one (1) Department 15 air atomization spray coating booth (U15-1), one (1) Department 20 HVLP paint spray booth (20-12B), and two (2) Department 25 air atomization spray coating booths (25S-1B and 25S-4B)**

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]
- D.1.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]
- D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]
- D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)]
- D.1.6 Volatile Organic Compounds (VOC)
- D.1.7 VOC Emissions
- D.1.8 Particulate Matter (PM)

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- D.1.9 Monitoring

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- D.1.10 Record Keeping Requirements
- D.1.11 Reporting Requirements

D.2 FACILITY OPERATION CONDITIONS -Two (2) decorative chrome electroplating operations

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.2.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR Part 63, Subpart A]
- D.2.2 Chromium Electroplating NESHAP [326 IAC 20-8-1][40 CFR Part 63, Subpart N]
- D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]
- D.2.4 Operation and Maintenance Plan [40 CFR 63.342(f)(3)]

Compliance Determination Requirements

- D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)][40 CFR 63.344]
- D.2.6 Monitoring to Demonstrate Continuous Compliance [40 CFR 63.343(c)(5) & (7)]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- D.2.7 Record Keeping Requirements [40 CFR 63.346]
- D.2.8 Reporting Requirements [40 CFR 63.345 & 63.347]

D.3 FACILITY OPERATION CONDITIONS - Two (2) 8.728 mmBtu/hr natural gas fired boilers (Boiler #1 and Boiler #2)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.2a.1 Particulate Matter for Indirect Heating (PM) [326 IAC 6-2]

Compliance Determination Requirements

- D.2a.2 Testing Requirements [326 IAC 2-7-6(1),(6)]
- D.2a.3 New Source Performance Standards (NSPS) 40 CFR § 60.48, Subpart Dc

D.3 FACILITY OPERATION CONDITIONS - Two (2) 7.0 mmBtu/hr natural gas fired boilers (Boiler #1 and Boiler #2)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.3.1 Particulate Matter (PM) [326 IAC 6-2-3]

Compliance Determination Requirements

- D.3.2 Testing Requirements [326 IAC 2-7-6(1),(6)]

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- D.3.3 Monitoring

D.4 FACILITY OPERATION CONDITIONS - One (1) Department 23 high gloss robotic spraycoating booth (23-13B)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]
- D.4.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]
- D.4.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]
- D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.4.5 Testing Requirements [326 IAC 2-7-6(1),(6)]
- D.4.6 Volatile Organic Compounds (VOC)
- D.4.7 VOC Emissions
- D.4.8 Particulate Matter (PM)

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- D.4.9 Monitoring

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.10 Record Keeping Requirements

D.4.11 Reporting Requirements

D.5 FACILITY OPERATION CONDITIONS - High gloss and low gloss robotic spray coating line (H20)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Volatile Organic Compound (VOC) Limit [326 IAC 2-2][326 IAC 8-1-6]

D.5.2 New Source Toxics Control [326 IAC 2-4.1-1]

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

D.5.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

D.5.5 Volatile Organic Compounds (VOC)

D.5.6 Regenerative Thermal Oxidizer

Compliance Monitoring Requirements [326 IAC 2-7-6 (1)] [326 IAC 2-7-5 (1)]

D.5.7 Parametric Monitoring

Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.8 Record Keeping Requirements

Certification

Emergency/Deviation Occurrence Report

Quarterly Reports

Chromium Electroplating NESHAP Ongoing Compliance Status Report

Quarterly Compliance Monitoring Report

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and City of Evansville EPA. The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary automotive decorative trim coating operation.

Responsible Official: David Bacon
Source Address: 601 North Congress Avenue, Evansville, Indiana 47715
Mailing Address: P.O. Box 5109, Evansville, Indiana 47716-5109
SIC Code: 3089
County Location: Vanderburgh
County Status: Attainment for all criteria pollutants
Source Status: Part 70 Permit Program
Major Source, under PSD Rules;
Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary[326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (1) One (1) Department 23 high gloss robotic spray coating line, coating plastic parts, constructed in March, 1994, identified as U23-1, consisting of four (4) High Volume, Low Pressure (HVLP) spray booths (23-5B, 23-6B, 23-7B and 23-8B), each using water back booths for Particulate Matter (PM) control, each exhausting to one (1) stack (23-5B, 23-6B, 23-7B, and 23-8B);
- (2) One (1) Department 23 low gloss robotic spray coating line, coating plastic parts, constructed in March, 1994, identified as U23-2, consisting of four (4) High Volume, Low Pressure (HVLP) spray booths (23-9B, 23-10B, 23-11B and 23-12B), each using water back booths for Particulate Matter (PM) control, each exhausting to one (1) stack (23-9B, 23-10B, 23-11B, 23-12B and 23-1H);
- (3) One (1) Department 13 (formerly Department 14) air atomization hand spray coating booth, coating plastic parts, constructed before 1980, no identification number assigned (formerly 14-1B), using fabric filters for Particulate Matter (PM) control, exhausting to one (1) stack (no identification number assigned (formerly 14-1B)) and three (3) Department 13 automatic paint machines, identified as 13-7, 13-8, and 13-9, coating plastic parts, constructed before 1980, using fabric filters for Particulate Matter (PM) control, each exhausting to one (1) stack (13-1A, 13-2A, and 13-3A);
- (4) One (1) Department 13 hand spray coating line, coating plastic parts, constructed before 1980, identified as U13-1, consisting of three (3) air atomization spray booths (13-7B, 13-8B and 13-9B), spray booth 13-7B using a water back booth for Particulate Matter (PM) control and spray booths 13-8B and 13-9B using fabric filters for Particulate Matter (PM) control, each exhausting to one (1) stack (13-7B, 13-8B and 13-9B);
- (5) One (1) Department 13 air atomization hand spray coating booth, coating plastic parts, constructed before 1980, identified as U13-2, using a water back booth for Particulate Matter (PM) control, exhausting to one (1) stack (13-6B);

- (6) One (1) Department 13 air atomization hand spray coating booth, coating plastic parts, constructed before 1980, identified as U13-3, using fabric filters for Particulate Matter (PM) control, exhausting to one (1) stack (13-5B);
- (7) One (1) Department 13 air atomization hand spray coating booth, coating plastic parts, constructed before 1980, identified as U13-4, using fabric filters for Particulate Matter (PM) control, exhausting to one (1) stack (13-3B);
- (8) One (1) Department 13 air atomization hand spray coating booth, coating plastic parts, constructed before 1980, identified as U13-5, using fabric filters for Particulate Matter (PM) control, exhausting to one (1) stack (13-2B);
- (9) One (1) Department 13 air atomization hand spray coating booth, coating plastic parts, constructed before 1980, identified as U13-6, using fabric filters for Particulate Matter (PM) control, exhausting to one (1) stack (13-1B);
- (10) One (1) Department 22 robotic spray coating line, coating plastic parts, constructed before 1980, identified as U22R-1, consisting of two (2) air atomization spray booths (22R-1B and 22R-2B), each using a water back booth for Particulate Matter (PM) control, each exhausting to one (1) stack (22R-1B and 22R-2B);
- (11) One (1) Department 22 robotic spray coating line, coating plastic parts, constructed before 1980, identified as U22R-2, consisting of two (2) air atomization spray booths (22R-3B and 22R-4B), each using a water back booth for Particulate Matter (PM) control, each exhausting to one (1) stack (22R-3B and 22R-4B);
- (12) One (1) Department 20 paint line, coating plastic parts, constructed before 1980, identified as U20-1, consisting of four (4) air atomization spray booths (20-1B, 20-2B, 20-3B and 20-4B), each using a water back booth for Particulate Matter (PM) control, each exhausting to one (1) stack (20-1B, 20-2B, 20-3B and 20-4B);
- (13) One (1) Department 20 paint line, coating plastic parts, constructed before 1980, identified as U20-2, consisting of two (2) air atomization spray booths (20-5B and 20-6B), each using a water back booth for Particulate Matter (PM) control, each exhausting to one (1) stack (20-5B and 20-6B);
- (14) One (1) Department 20 paint line, coating plastic parts, constructed before 1980, identified as U20-3, consisting of two (2) air atomization spray booths (20-7B and 20-8B), spray booth 20-7B using fabric filters for Particulate Matter (PM) control and spray booth 20-8B using a water back booth for Particulate Matter (PM) control, each exhausting to one (1) stack (20-7B and 20-8B);
- (15) One (1) Department 20 air atomization spray booth, coating plastic parts, constructed before 1980, identified as U20-4, using a water back booth for Particulate Matter (PM) control, exhausting to one (1) stack (20-9B);
- (16) One (1) Department 22 robotic spray coating line, coating plastic parts, constructed before 1980, identified as U22R-3, consisting of two (2) air atomization spray booths (22R-5B and 22R-6B), each using a water back booth for Particulate Matter (PM) control, each exhausting to one (1) stack (22R-5B and 22R-6B);
- (17) Two (2) air atomization spray coating booths, coating plastic parts, now located in storage, constructed before 1980, formerly identified as 20C-6B and 20C-7B, using a water back booth for Particulate Matter (PM) control;

- (18) One (1) Department 15 air atomization spray coating booth, coating plastic parts, constructed before 1980, identified as U15-1, using a fabric filter for Particulate Matter (PM) control, exhausting to one (1) stack (15-1B);
- (19)
 - (a) One (1) decorative chrome electroplating line, constructed in January 1991 and modified in March 1993, identified as U19-1, using wet scrubbers and fume suppressant for Particulate Matter (PM) and Hazardous Air Pollutant (HAP) control, exhausting to five (5) stacks (19-1S, 19-2S, 19-3S, 19-4S and 19-5);
 - (b) One (1) new decorative chrome electroplating line, using a wetting agent for Particulate Matter (PM) and chromic emissions control; and
 - (c) Seven (7) Vannaire's scrubbers, IDS1 through S7 which are voluntarily installed to control the water vapor from the plating line, that causes corrosion to process equipment and building roofs.
- (20) One (1) Department 20 High Volume, Low Pressure (HVLP) paint spray booth, coating plastic parts, constructed in 1997, identified as 20-12B, using a water wash booth for Particulate Matter (PM) control, exhausting to one (1) stack (20-12B); and
- (21) Two (2) Department 25 air atomization spray coating booths, coating plastic parts, constructed before 1980, identified as 25S-1B and 25S-4B, each using fabric filters for Particulate Matter (PM) control, each exhausting to one (1) stack (25S-1B and 25S-4B).
- (22) One (1) new natural gas-fired boiler, with a heat input rate not to exceed 19 million British Thermal Units per hour (mmBtu/hr); and
- (23) Five (5) new natural gas-fired air make-up units, with a total heat input rate not to exceed 36 mmBtu/hr.
- (24) One (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20, consisting of four (4) High Volume, Low Pressure (HVLP) spray booths, each using water wash for Particulate Matter (PM) control, utilizing a regenerative thermal oxidizer as control and exhausting to stack RTOE. The regenerative thermal oxidizer has a heat input of 2 mmBtu per hour, a 90% overall collection efficiency, and exhausts to stack RTOE.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (1) Two (2) natural gas fired boilers, identified as Boiler #1 and Boiler #2, each with maximum heat input capacity of 8.728 million British thermal units per hour (mmBtu/hr).
- (2) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.5

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (22) One (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20, consisting of four (4) High Volume Low Pressure (HVLP) spray booths, each using water wash for Particulate Matter (PM) control, utilizing a regenerative thermal oxidizer as control and exhausting to stack RTOE. The regenerative thermal oxidizer has a heat input of 2 million British thermal units (mmBtu) per hour, and exhausts to stack RTOE.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Volatile Organic Compound (VOC) Limit [326 IAC 2-2][326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the Best Available Control Technology (BACT) for the one (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20 shall be:

- (a) The use at all times that the one (1) high gloss and low gloss robotic spray coating line is in operation of a regenerative thermal oxidizer that maintains a minimum overall VOC control efficiency (including capture and destruction efficiencies) of 90.0%. When operating, the thermal incinerator shall maintain a minimum operating temperature of 1500 °F during operation until a temperature and fan amperage has been determined from the most recent compliant stack test, as approved by IDEM.
- (b) The VOC content delivered to the spray coating line H20 shall be limited to less than 228.88 tons per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of VOC to less than 22.89 tons per twelve (12) consecutive month period.

D.5.2 New Source Toxics Control [326 IAC 2-4.1-1]

- (a) HAP emissions from the one (1) high gloss and low gloss robotic spray coating line, shall be controlled by the regenerative thermal oxidizer, to assure the single HAP and total HAPs emissions are maintained at less than 10 and 25 tons, respectively, per 12 month consecutive period. This requirement will render the requirements of 326 IAC 2-4.1-1 not applicable.
- (b) The any single HAP content delivered to the spray coating line H20 shall be limited to less than 85.24 tons per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of any single HAP content to less than 8.52 tons per twelve (12) consecutive month period.
- (c) The total HAP content delivered to the spray coating line H20 shall be limited to less than 155.45 tons per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of total HAP content to less than 15.54 tons per twelve (12) consecutive month period.

D.5.3 PSD Minor Modification Limit [326 IAC 2-2] [40 CFR 52.21]

The controlled VOC potential emissions from this facility are less than 40 tons per year. Therefore, the PSD requirement in 326 IAC 2-2 (PSD) does not apply. Any change or modification which may increase VOC potential emissions to 40 tons per year or more from this facility shall obtain OAQ approval before such change may occur.

D.5.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.5.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within 180 days after issuance of this permit, the Permittee shall perform VOC testing utilizing Methods 25 (40 CFR 60, Appendix A) for VOC or other methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.

D.5.6 Volatile Organic Compounds (VOC)

Compliance with the VOC and HAP content and usage limitations in order to demonstrate the compliance of Conditions D.5.1, D.5.2 and D.5.3 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.5.7 Regenerative Thermal Oxidizer

The regenerative thermal oxidizer shall operate at all times that the process is in operation. When operating, the thermal incinerator shall maintain a minimum operating temperature of 1500 °F during operation until a temperature and fan amperage has been determined from the most recent compliant stack test, as approved by IDEM. The temperature correlates to an overall VOC control efficiency of 90.0%.

Compliance Monitoring Requirements [326 IAC 2-7-6 (1)] [326 IAC 2-7-5 (1)]

D.5.8 Parametric Monitoring

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the regenerative thermal oxidizer for measuring operating temperature. The output of this system shall be recorded, and that temperature shall be greater than or equal to the temperature used to demonstrate compliance during the most recent compliance stack test.
- (b) The duct pressure or fan amperage shall be observed at least once per week when the thermal oxidizer is in operation. This pressure or amperage shall be maintained within the range, as established in most recent compliant stack test, to maintain a minimum 90.0% overall control efficiency (including capture and destruction efficiencies) of VOC emissions from the one (1) high gloss and low gloss robotic spray coating line.
- (c) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the reading is outside the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.9 Record Keeping Requirements

- (a) To document compliance with Conditions D.5.1, D.5.2, D.5.3 and D.5.8, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC emission limits and/or the HAP emission limits established in Conditions D.5.1, D.5.2, D.5.3 and D.5.8.

- (1) The amount and VOC and HAP content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC and HAP usage for each month;
 - (5) The weight of VOCs and HAPs emitted for each compliance period;
 - (6) The continuous temperature records for the regenerative thermal oxidizer and the temperature used to demonstrate compliance during the most recent compliance stack test; and
 - (7) Weekly records of the duct pressure or fan amperage.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.5.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.5.1 and D.5.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Office of Air Quality
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Guardian Automotive Trim, Inc.
Source Address: 601 N. Congress Avenue, Evansville, IN 47715
Mailing Address: P.O. Box 5109, Evansville, Indiana 47716-5109
Part 70 Permit No.: T163-6502-00017
Facility: Spray coating line H20
Parameter: VOC Usage
Limit: The VOC content delivered to the spray coating line H20 shall be limited to less than 228.88 tons per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of VOC to less than 22.89 tons per twelve (12) consecutive month period.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	VOC Usage This Month	VOC Usage Previous 11 Months	VOC Usage 12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Office of Air Quality
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Guardian Automotive Trim, Inc.
Source Address: 601 N. Congress Avenue, Evansville, IN 47715
Mailing Address: P.O. Box 5109, Evansville, Indiana 47716-5109
Part 70 Permit No.: T163-6502-00017
Facility: Spray coating line H20
Parameter: Any single HAP/ Total HAP
Limit: (a) The any single HAP content delivered to the spray coating line H20 shall be limited to less than 85.24 tons per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of any single HAP content to less than 8.52 tons per twelve (12) consecutive month period.
(b) The total HAP content delivered to the spray coating line H20 shall be limited to less than 155.45 tons per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of total HAP content to less than 15.54 tons per twelve (12) consecutive month period.

YEAR: _____

Month	Column 1	Column 2	Column 3	Column 4	Column 1 + Column 3	Column 2 + Column 4
	Any Single Hap Usage This Month	Total Hap Usage This Month	Any Single Hap Usage Previous 11 Months	Total Hap Usage Previous 11 Months	Any Single Hap Usage 12 Month Total	Total Hap Usage 12 Month Total
Month 1						
Month 2						
Month 3						

9 No deviation occurred in this quarter.
9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Significant Source Modification to a Part 70 Operating Permit

Source Name:	Guardian Automotive Trim, Inc.
Source Location:	601 N. Congress Avenue, Evansville, IN 47715
County:	Vanderburgh
SIC Code:	3089
Operation Permit No.:	T163-6502-00017
Operation Permit Issuance Date:	January 19, 1999
Source Modification No.:	SSM163-12662-00017
Permit Reviewer:	Phillip Ritz/EVP

On November 19, 2000, the Office of Air Quality (OAQ) had a notice published in the Evansville Courier, Evansville, Indiana, stating that Guardian Automotive Trim, Inc. had applied for a Significant Source Modification to a Part 70 Operating Permit to operate a new paint line and associated equipment. The notice also stated that OAQ proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On November 30, 2000, William Peters submitted comments on behalf of Guardian Automotive Trim, Inc., on the proposed Significant Source Modification to a Part 70 Operating Permit. The summary of the comments and corresponding responses is as follows:

Comment 1

The Table of Contents on Page 1c of 48 of the permit should mention that the Evansville facility has two decorative chrome electroplating operations. The second operation not listed in D.2 was permitted under a Minor Source Modification T163-11437-00017.

Response 1

The Table of Contents on Page 1c of 48 of the permit has been revised as follows to list the units approved in Minor Source Modification T163-11437-00017 (new language has been **bolded**, ~~strikeout~~ language that has been removed):

D.2 FACILITY OPERATION CONDITIONS - ~~One (1)~~ **Two (2)** decorative chrome electroplating operations

Comment 2

On Page 1c of 48, the two boilers are rated at 8.728 mmBTU/hr. This change was requested previously as part of an Administrative Amendment request sent on 10-29-1999. It is my understanding this correction was made previously with an Administrative Amendment.

Response 2

The Table of Contents on Page 1c of 48 of the permit has been revised as follows to list the units approved in Minor Source Modification T163-11437-00017:

D.3 FACILITY OPERATION CONDITIONS - Two (2) ~~7-0~~ **8.728** mmBtu/hr natural gas fired boilers (Boiler #1 and Boiler #2)

Comment 3

On Page 2 of 48, Section A.1 of the permit, the Responsible Official for the Evansville plant is Mr. David Bacon. Mr. Bacon is listed on the permit application for the HG20 paint line as the Responsible Official. Mr. Bacon has replaced the previous person listed with IDEM as the Responsible Official.

Response 3

Page 2 of 48, Section A.1 of the permit has been revised as follows to list the correct responsible official:

Responsible Official: ~~Robert M. Clark~~ **David Bacon**

Comment 4

On page 4 of 48 of the permit, please insert the description for the boiler and natural gas make up units listed in D.3 (on page 1c of 48) on this page.

Response 4

Page 4 of 48 of the permit has been revised as follows to list the units approved in Minor Source Modification T163-11437-00017:

(22) One (1) new natural gas-fired boiler, with a heat input rate not to exceed 19 million British Thermal Units per hour (mmBtu/hr); and

(23) Five (5) new natural gas-fired air make-up units, with a total heat input rate not to exceed 36 mmBtu/hr.

~~(22)~~**(24)**One (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20, consisting of four (4) High Volume, Low Pressure (HVLP) spray booths, each using ~~dry filters~~ **water wash** for Particulate Matter (PM) control, utilizing a regenerative thermal oxidizer as control and exhausting to stack RTOE. The regenerative thermal oxidizer has a heat input of 2 mmBtu per hour, a 90% overall collection efficiency, and exhausts to stack RTOE.

Comment 5

Please insert the description of the new plating line mentioned previously on this page.

Response 5

Page 4 of 48 of the permit has been revised as follows to list the units approved in Minor Source Modification T163-11437-00017:

- (19) **(a)** One (1) decorative chrome electroplating line, constructed in January 1991 and modified in March 1993, identified as U19-1, using wet scrubbers and fume suppressant for Particulate Matter (PM) and Hazardous Air Pollutant (HAP) control, exhausting to five (5) stacks (19-1S, 19-2S, 19-3S, 19-4S and 19-5);
- (b)** **One (1) new decorative chrome electroplating line, using a wetting agent for Particulate Matter (PM) and chromic emissions control; and**
- (c)** **Seven (7) Vannaire's scrubbers, IDS1 through S7 which are voluntarily installed to control the water vapor from the plating line, that causes corrosion to process equipment and building roofs.**

Comment 6

Please change the Btu rating from 7.0 mmBtu/hr to 8.728 mmBtu/hr.

Response 6

Page 4 of 48 of the permit has been revised as follows:

- (1) Two (2) natural gas fired boilers, identified as Boiler #1 and Boiler #2, each with maximum heat input capacity of ~~7.0~~ **8.728** million British thermal units per hour (mmBtu/hr).

Comment 7

On page 40d of 48 of the permit, Section D.5, Facility Description, change "dry filters" to "water wash." The overspray control equipment has been changed in the final design from filters to water wash booths.

Response 7

Page 4 of 48 of the permit has been revised as follows:

- (22) One (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20, consisting of four (4) High Volume Low Pressure (HVLP) spray booths, each using ~~dry filters~~ **water wash** for Particulate Matter (PM) control, utilizing a regenerative thermal oxidizer as control and exhausting to stack RTOE. The regenerative thermal oxidizer has a heat input of 2 million British thermal units (mmBtu) per hour, and exhausts to stack RTOE.

Comment 8

On Condition D.5.1 of the permit, Guardian Automotive requested a permit limit of less than 25 tons of VOCs per 12 month rolling average. This limit would make 326 IAC 8-1-6 Best Available Control Technology not applicable. The limit will be met through the use of the control device and limiting our usage of paint and solvent materials if necessary.

Response 8

The source is requesting to use a 25 ton per year limit of VOC after the use of a control device (regenerative thermal oxidizer) to make the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable. However, the applicability of 326 IAC 8-1-6 is determined before the use of the control device.

326 IAC 8-1-6 states that new facilities, which have potential emissions of 25 tons or more per year, located anywhere in the state, which are not otherwise regulated by other provisions of 326 IAC 8, shall reduce VOC emissions using best available control technology (BACT).

Potential emissions is defined as the emissions of any one pollutant which would be emitted from a facility if that facility were operated without the use of pollution control equipment unless such control equipment is necessary for the facility to produce its normal product or is integral to the normal operation of the facility.

As stated on page 6 of 14 of the TSD, the proposed robotic spray coating line H20 is not regulated by any other provisions of 326 IAC 8 and has potential uncontrolled VOC emissions of 228.9 tons per year. Pursuant to 326 IAC 8-1-6 the spray coating line H20 must utilize BACT to control VOC emissions. Without including the control device, a VOC usage limit of 24 tons per year would have been required to make the requirements of 326 IAC 8-1-6 not applicable. A regenerative thermal oxidizer along with a VOC usage limit of less than 228.88 tons per twelve (12) consecutive month period was determined to be BACT. There have been no changes to the permit as a result of this comment.

Comment 9

Guardian will agree to the language concerning the 1500 degree operating temperature for the oxidizer when it is in operation. Guardian does not agree with the language requiring the oxidizer to be operating at all times the paint line is in operation. Since 326 IAC 8-1-6 is not applicable compliance with the 25 ton limit is the only applicable permit restriction. Guardian can meet the 25 ton limit through the use of the oxidizer operation and a possible limited amount of paint line operation during which the oxidizer does not operate. This allows Guardian to run the paint line during a possible breakdown of the oxidizer.

Guardian will track and account for all uncontrolled emissions in the monthly totals. The use of the paint line without the operation of the oxidizer is legal as long as the 25 ton limit is not exceeded.

Response 9

The source is requesting to use a 25 ton per year limit of VOC after the use of a control device (regenerative thermal oxidizer) to make the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable. However, the applicability of 326 IAC 8-1-6 is determined before the use of the control device. As stated on page 6 of 14 of the TSD, the proposed robotic spray coating line H20 is not regulated by any other provisions of 326 IAC 8 and has potential uncontrolled VOC emissions of 228.9 tons per year. The regenerative thermal oxidizer must be operated at all times that the spray coating line H20 is in operation to comply with 326 IAC 8-1-6 (New Facilities; General Reduction Requirements). This is why condition D.5.7 is listed under the Compliance Determination Requirements. In the case of an emergency or malfunction, the Permittee would follow the procedures in the applicable conditions of the permit such as Condition B.13, Emergency Provisions, and Condition B.16, Deviations from Permit Requirements and Conditions or in the applicable rules for emergencies and malfunctions which are 326 IAC 2-7-16 and 326 IAC 1-6, respectively. There have been no changes made to this condition as a result of this comment.

Comment 10

Please revise D.5.1 to reflect a 25 ton limit, a 1500 degree temperature and the ability to operate the paint line without the oxidizer.

Response 10

The regenerative thermal oxidizer is required to be in operation at all times the spray coating line H20 is in operation. The VOC usage limit of less than 228.88 tons per twelve (12) consecutive month period is as it was a part of the BACT analysis. The minimum operating temperature is required to ensure that the overall control efficiency is 90.0% or greater. No change has been made to the permit as a result of this comment.

Comment 11

In condition D.5.2, please delete (b) & (c). These sections are not necessary and do not add any benefit to the permit. Item (a) details all necessary requirements.

Response 11

Condition D.5.2, paragraphs (b) & (c) are necessary to ensure that 326 IAC 2-4.1-1 (New Source Toxics Control) does not apply to the spray coating line H20. Should the controlled any single HAP and total HAP emissions from the spray coating line H20 exceed 10 and 25 tons per year, respectively, the source must obtain OAQ approval before such change may occur and satisfy the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control).

Comment 12

Condition D.5.5, please change the testing requirement to: Within 180 days of reaching full operation or within one year of starting operation, the Permittee . . . Guardian intends to test the efficiency of the oxidizer as soon as we reach full production. Guardian anticipates reaching full production by early fall of 2001.

Response 12

The permit has been revised as follows:

D.5.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

~~During the period between 30 and 36 months~~ **Within 180 days** after issuance of this permit, the Permittee shall perform VOC testing utilizing Methods 25 (40 CFR 60, Appendix A) for VOC or other methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.

Comment 13

Condition D.5.7, strike the first sentence requiring the oxidizer to operate at all times the paint line is operating. Please see previous explanation.

Response 13

See the response to Comment 9.

Comment 14

Condition D.5.8 (a), please insert language stating the temperature of the oxidizer shall be determined over a 3-hour average. Guardian does not think it is correct to base the temperature on instantaneous readings. It is very possible for the oxidizer to slip 1 degree below the test temperature for a brief period of time. This would not substantially affect the control efficiency of the system but would be considered a violation. Using an average temperature will allow a fairer measurement of the true operating conditions.

If an average temperature over a reasonable time frame is not allowed, Guardian will need to operate the oxidizer at a much higher temperature than necessary. This will need to be done to provide a safety margin in case there is a momentary drop in temperature. Guardian would consume additional natural gas to maintain the higher than necessary temperature. This will result in additional unwarranted emissions of NOx, CO etc.

There are many instances where the oxidizer burner may turn off for safety reasons. In most instances these problems can be corrected quickly but the instantaneous temperature could fall below the test temperature. Using an average temperature will not unduly penalize Guardian for these momentary blips.

Response 14

A range of operating temperatures is acceptable for the oxidizer as long as the minimum temperature is the temperature determined in the most recent compliance stack test to maintain at least a 90.0% overall control efficiency. The temperature to monitor is the temperature in the oxidizer at the point of oxidation.

The operating parameter of the oxidizers will be determined based on the most recent compliance stack tests. As condition D.5.7 states, the operating parameter for the oxidizers is the minimum combustion temperature.

The 1,500 F minimum operating temperature will not be eliminated, as the 1,500 F is a reasonable operating temperature to use until a revised limit is obtained by stack testing. The operating temperature is required because in Condition D.5.7, IDEM, OAQ is giving the source the flexibility of setting the operating temperature at the time of testing so that a 90.0% destruction efficiency is achieved. This condition is expressed in the second sentence of Condition D.5.7 and states "When operating, the thermal incinerator shall maintain a minimum operating temperature of 1500 °F during operation until a temperature and fan amperage has been determined from the most recent compliant stack test, as approved by IDEM." No changes have been made to the permit as a result of this comment.

Comment 15

Page 42a of 51, revise the wording on the limit to reflect a 25 ton per year emission limit. Correct the table to reflect emitted VOC and not usage.

Response 15

See the response to Comment 10.

Comment 16

Page 42b of 51, Revise the wording on the limit to reflect 10 ton and 25 ton per year emission limit. Correct the table to reflect emitted HAPs and not usage.

Response 17

See the response to Comment 11.

Comment 18

TSD Page 1 of 14, Change dry filters to water wash.

Response 18

The following revisions have been made to the Technical Support Document under Compliance Requirements (**bolded** language has been added, the language with a ~~line~~ through it has been deleted). The OAM prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Page 1 of 14 of the TSD has been revised as follows:

- (a) One (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20, consisting of four (4) High Volume Low Pressure (HVLP) spray booths, each using ~~dry filters~~ **water wash** for Particulate Matter (PM) control, utilizing a regenerative thermal oxidizer as control and exhausting to stack RTOE. The regenerative thermal oxidizer has a heat input of 2 million British thermal units (mmBtu) per hour, and exhausts to stack RTOE.

Comment 19

On page 1 of 14 c, the 4 burners for the power washer exhaust up stacks through the roof not into the building. Please review flow diagram and stack sheet for details.

Response 19

Page 1 of 14 of the TSD has been revised as follows:

- (c) One (1) power washer station, cleaning plastic parts, identified as PW1, consisting of four (4) natural gas burners with heat inputs of 3.8, 2.5, 1.5, and 1.0 mmBtu per hour, respectively, exhausting to ~~the interior of the building~~.

Comment 20

- (a) The location of the paint line HG20 in the building has been changed. The paint line will be installed approximately 150 feet further East than is depicted on the original plant layout. The paint line will be in the area marked as Dept. 13 on the plant layout. The location of the oxidizer will not change.
- (b) There are several places in the TSD where items need to be changed. The changes are the same changes I requested earlier in this document. When the changes are made to the permit the TSD will need to be corrected to reflect the new wording.

Response 20

- (a) No change is required to the TSD as a result of this comment.
- (b) See the responses to comments 8, 9, 10, 11, 13 and 14.

**Indiana Department of Environmental Management
Office of Air Management
and
City of Evansville EPA**

**Technical Support Document (TSD) for a Significant Source Modification to a Part
70 Operating Permit**

Source Background and Description

Source Name:	Guardian Automotive Trim, Inc.
Source Location:	601 N. Congress Avenue, Evansville, IN 47715
County:	Vanderburgh
SIC Code:	3089
Operation Permit No.:	T163-6502-00017
Operation Permit Issuance Date:	January 19, 1999
Source Modification No.:	SSM163-12662-00017
Permit Reviewer:	Phillip Ritz/EVP

The Office of Air Management (OAM) has reviewed a modification application from Guardian Automotive Trim, Inc. relating to the operation of a new paint line and associated equipment.

History

On August 29, 2000, Guardian Automotive Trim, Inc. submitted an application to the OAM requesting to add a new paint line and associated equipment to their existing plant. Guardian Automotive Trim, Inc. was issued a Part 70 permit on January 19, 1999.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-7-5(16):

- (a) One (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20, consisting of four (4) High Volume Low Pressure (HVLP) spray booths, each using dry filters for Particulate Matter (PM) control, utilizing a regenerative thermal oxidizer as control and exhausting to stack RTOE. The regenerative thermal oxidizer has a heat input of 2 million British thermal units (mmBtu) per hour, and exhausts to stack RTOE;
- (b) One (1) cure oven, identified as (COE), with a maximum capacity of 2 mmBtu/hr, utilizing a regenerative thermal oxidizer as control and exhausting to stack RTOE; and
- (c) One (1) power washer station, cleaning plastic parts, identified as PW1, consisting of four (4) natural gas burners with heat inputs of 3.8, 2.5, 1.5, and 1.0 mmBtu per hour, respectively, exhausting to the interior of the building.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Existing Approvals

The source was issued a Part 70 Operating Permit T163-6502-00017 on January 19, 1999. The source has since received the following:

- (a) First Significant Source Modification No.: 163-10592-00017, issued on June 24, 1999;
- (b) First Administrative Amendment No.: 163-11080-00017, issued on July 26, 1999;
- (c) Second Administrative Amendment No.: 163-11523-00017, issued on November 29, 1999;
- (d) First Minor Source Modification No.: 163-11437-00017, issued on December 21, 1999;
- (e) First Significant Permit Modification No.: 163-11558-00017, issued on February 14, 2000;
- (f) First Administrative Amendment No.: 163-11681-00017, issued on February 15, 2000; and
- (g) Interim Construction Permit No.: 163-12662I-00017, issued on October 2, 2000.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
WEE1	Natural Gas Burner	30	2	4,250	160
WEE2	Natural Gas Burner	30	2	4,250	160
WB1	Natural Gas Burner	30	1.5	1,320	600
WB2	Natural Gas Burner	30	1.25	870	600
WB3	Natural Gas Burner	30	1	520	600
DOOE	Natural Gas Burner	30	1	2,030	250
CTE	Natural Gas Burner	30	2.25	8,007	100
RTOE	Regenerative thermal oxidizer	35	2.67	15,000(dscfm)	250

Recommendation

The staff recommends to the Commissioner that the Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on August 29, 2000.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 4)

Potential To Emit Before Controls (Modification)

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

Pollutant	Potential To Emit (tons/year)
PM	24.56
PM-10	24.56
SO ₂	0.00
VOC	228.88
CO	0.00
NO _x	0.00

HAP's	Potential To Emit (tons/year)
Xylene	greater than 10
Hexamethylene Diisocyanate (HDI) Monomer	less than 10
Ethyl Benzene	less than 10
Methyl Ethyl Ketone	greater than 10
Methyl Isobutyl Ketone	greater than 10
Toluene	less than 10
TOTAL	greater than 25

Justification for Modification

The Title V permit is being modified through a Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(g) as the modification has the potential to emit greater than or equal to twenty-five (25) tons per year of any of Volatile organic compounds (VOC).

County Attainment Status

The source is located in Vanderburgh County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	maintenance
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Vanderburgh County has been designated as attainment or unclassifiable for ozone.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	Total HAPs/Any Single HAP
Construction Permit CP163-2106-00017 issued on April 3, 1992	--	--	--	246.00	--	--	--
CP163-8311-00017 issued on June 19, 1997	--	--	--	24.00	--	--	--
1st Minor Source Mod #:163-11437-00017 issued on December 21, 1999	--	--	--	1.40	--	--	--
Total Emissions	0.00	0.00	0.00	271.40	0.00	0.00	0.00
PSD Significant Level	250	250	250	250	250	250	NA

This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

These emissions are based upon previous approvals issued to the source.

Potential to Emit After Controls for the Modification

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units for the modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	Total HAPs/Any Single HAP
HG20	0.25	0.25	0.00	22.89	0.00	0.00	15.54/ (Methyl Isobutyl Ketone) 8.52
Natural Gas Combustion	0.11	0.43	0.03	0.31	4.71	5.61	0.00
Total Emissions	0.36	0.68	0.03	23.20	4.71	5.61	15.54/ (Methyl Isobutyl Ketone) 8.52
PSD Significant Level	25	15	40	40	100	40	NA

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

There are no new Federal Rules applicable due to this First Significant Source Modification. All Federal Rules cited in Part 70 Operating Permit T163-6502-00017, issued on January 19, 1999, continue to apply to this source.

State Rule Applicability - Entire Source

There are no new State Rules applicable on a source-wide basis due to this Significant Source Modification. All source-wide State Rules cited in Part 70 Operating Permit T163-6502-00017, issued on January 19, 1999, continue to apply to this source.

State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration)

This source is a major source under 326 IAC 2-2 (Prevention of Significant Deterioration). The facilities listed in this proposed Significant Source Modification have emissions that have a potential to emit after controls that are less than the PSD significant levels. The VOC emissions from this facility are equal to 23.20 tons per year, after controls, which is less than PSD thresholds for VOC. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

326 IAC 2-4.1-1 (New Source Toxics Control)

- (a) The one (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20 is not subject to the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control). The controlled any single HAP and total HAP emissions are less than 10 and 25 tons per year, respectively.

- (b) The any single HAP content delivered to the spray coating line H20 shall be limited to less than 85.24 tons per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of any single HAP content to less than 8.52 tons per twelve (12) consecutive month period.
- (c) The total HAP content delivered to the spray coating line H20 shall be limited to less than 155.45 tons per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of total HAP content to less than 15.54 tons per twelve (12) consecutive month period.

Therefore, the one (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20 is not subject to the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control).

326 IAC 6-3 (Process Operations)

Pursuant to 326 IAC 6-3 (Process Operations), the particulate matter (PM) from the one (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20 shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The dry filters shall be in operation at all times the one (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20 is in operation, in order to comply with this limit.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

This rule requires that new facilities (as of January 1, 1980), which have potential VOC emissions of 25 tons or more per year, located anywhere in the state, which are not otherwise regulated by other provisions of 326 IAC 8, shall reduce VOC emissions using Best Available Control Technology (BACT). The proposed robotic spray coating line H20 is not regulated by any other provisions of 326 IAC 8 and has potential uncontrolled VOC emissions of 228.9 tons per year. Pursuant to 326 IAC 8-1-6 the spray coating line H20 must utilize BACT to control VOC emissions.

- (a) The source shall use a regenerative thermal oxidizer with overall control efficiency (including capture and destruction efficiencies) of no less than 90% to control the VOC emissions from spray coating line H20. OAM has determined that a regenerative thermal oxidizer with an overall efficiency of no less than 90% is a BACT for this kind of coating operation. The regenerative thermal oxidizer shall operate at all times that the process is in operation. When operating, the thermal incinerator shall maintain a minimum operating temperature of 1500 °F during operation until a temperature and fan amperage has been determined from the most recent compliant stack test, as approved by IDEM; and
- (b) The VOC content delivered to the spray coating line H20 shall be limited to less than 228.88 tons per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of VOC to less than 22.89 tons per twelve (12) consecutive month period.

Therefore, the proposed spray coating line H20 with VOC controlled by a regenerative thermal oxidizer satisfies the requirements of 326 IAC 8-1-6.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The one (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20, has applicable compliance monitoring conditions as specified below:

A continuous monitoring system shall be calibrated, maintained, and operated on the regenerative thermal oxidizer for measuring operating temperature. The output of this system shall be recorded, and that temperature shall be greater than or equal to the temperature used to demonstrate compliance during the most recent compliance stack test. The duct pressure or fan amperage shall be observed at least once per week when the thermal oxidizer is in operation. This pressure or amperage shall be maintained within the range, as established in most recent compliant stack test, to maintain a minimum 90.0% overall control efficiency (including capture and destruction efficiency) of VOC emissions from the one (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the reading is outside the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

These monitoring conditions are necessary because the regenerative thermal oxidizer for the one (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20, must operate properly to ensure compliance with 326 IAC 2-2 (Prevention of Significant Deterioration), 326 IAC 2-4.1-1 (New Source Toxics Control), 326 IAC 6-3-2 (Process Operations), 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) and 326 IAC 2-7 (Part 70).

Changes Proposed

The following changes have been made to the Part 70 Permit with the approval of the OAM Air Compliance Section:

Section A.2 of the permit has been revised to include the following emission unit description:

- (22) One (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20, consisting of four (4) High Volume Low Pressure (HVLV) spray booths, each using dry filters for Particulate Matter (PM) control, utilizing a regenerative thermal oxidizer as control and exhausting to stack RTOE. The regenerative thermal oxidizer has a heat input of 2 million British thermal units (mmBtu) per hour, and exhausts to stack RTOE.

Section D.5 has been added to the permit as follows:

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (22) One (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20, consisting of four (4) High Volume Low Pressure (HVLV) spray booths, each using dry filters for Particulate Matter (PM) control, utilizing a regenerative thermal oxidizer as control and exhausting to stack RTOE. The regenerative thermal oxidizer has a heat input of 2 million British thermal units (mmBtu) per hour, and exhausts to stack RTOE.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Volatile Organic Compound (VOC) Limit [326 IAC 2-2][326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the Best Available Control Technology (BACT) for the one (1) high gloss and low gloss robotic spray coating line, coating plastic parts, identified as H20 shall be:

- (a) The use at all times that the one (1) high gloss and low gloss robotic spray coating line is in operation of a regenerative thermal oxidizer that maintains a minimum overall VOC control efficiency (including capture and destruction efficiencies) of 90.0%. When operating, the thermal incinerator shall maintain a minimum operating temperature of 1500 °F during operation until a temperature and fan amperage has been determined from the most recent compliant stack test, as approved by IDEM.
- (b) The VOC content delivered to the spray coating line H20 shall be limited to less than 228.88 tons per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of VOC to less than 22.89 tons per twelve (12) consecutive month period.

D.5.2 New Source Toxics Control [326 IAC 2-4.1-1]

- (a) HAP emissions from the one (1) high gloss and low gloss robotic spray coating line, shall be controlled by the regenerative thermal oxidizer, to assure the single HAP and total HAPs emissions are maintained at less than 10 and 25 tons, respectively, per 12 month consecutive period. This requirement will render the requirements of 326 IAC 2-4.1-1 not applicable.
- (b) The any single HAP content delivered to the spray coating line H20 shall be limited to less than 85.24 tons per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of any single HAP content to less than 8.52 tons per twelve (12) consecutive month period.
- (c) The total HAP content delivered to the spray coating line H20 shall be limited to less than 155.45 tons per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of total HAP content to less than 15.54 tons per twelve (12) consecutive month period.

D.5.3 PSD Minor Modification Limit [326 IAC 2-2] [40 CFR 52.21]

The controlled VOC potential emissions from this facility are less than 40 tons per year. Therefore, the PSD requirement in 326 IAC 2-2 (PSD) does not apply. Any change or modification which may increase VOC potential emissions to 40 tons per year or more from this facility shall obtain OAM approval before such change may occur.

D.5.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.5.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform VOC testing utilizing Methods 25 (40 CFR 60, Appendix A) for VOC or other methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.

D.5.6 Volatile Organic Compounds (VOC)

Compliance with the VOC and HAP content and usage limitations in order to demonstrate the compliance of Conditions D.5.1, D.5.2 and D.5.3 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.5.7 Regenerative Thermal Oxidizer

The regenerative thermal oxidizer shall operate at all times that the process is in operation. When operating, the thermal incinerator shall maintain a minimum operating temperature of 1500 °F during operation until a temperature and fan amperage has been determined from the most recent compliant stack test, as approved by IDEM. The temperature correlates to an overall VOC control efficiency of 90.0%.

Compliance Monitoring Requirements [326 IAC 2-7-6 (1)] [326 IAC 2-7-5 (1)]

D.5.8 Parametric Monitoring

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the regenerative thermal oxidizer for measuring operating temperature. The output of this system shall be recorded, and that temperature shall be greater than or equal to the temperature used to demonstrate compliance during the most recent compliance stack test.
- (b) The duct pressure or fan amperage shall be observed at least once per week when the thermal oxidizer is in operation. This pressure or amperage shall be maintained within the range, as established in most recent compliant stack test, to maintain a minimum 90.0% overall control efficiency (including capture and destruction efficiencies) of VOC emissions from the one (1) high gloss and low gloss robotic spray coating line.
- (c) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the reading is outside the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.9 Record Keeping Requirements

- (a) To document compliance with Conditions D.5.1, D.5.2, D.5.3 and D.5.8, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC emission limits and/or the HAP emission limits established in Conditions D.5.1, D.5.2, D.5.3 and D.5.8.
 - (1) The amount and VOC and HAP content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC and HAP usage for each month;
 - (5) The weight of VOCs and HAPs emitted for each compliance period;
 - (6) The continuous temperature records for the regenerative thermal oxidizer and the temperature used to demonstrate compliance during the most recent compliance stack test; and
 - (7) Weekly records of the duct pressure or fan amperage.

- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.**

D.5.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.5.1 and D.5.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Two Quarterly Report Forms have been added to the permit as follows:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Guardian Automotive Trim, Inc.
Source Address: 601 N. Congress Avenue, Evansville, IN 47715
Mailing Address: P.O. Box 5109, Evansville, Indiana 47716-5109
Part 70 Permit No.: T163-6502-00017
Facility: Spray coating line H20
Parameter: VOC Usage
Limit: The VOC content delivered to the spray coating line H20 shall be limited to less than 228.88 tons per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of VOC to less than 22.89 tons per twelve (12) consecutive month period.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	VOC Usage This Month	VOC Usage Previous 11 Months	VOC Usage 12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Guardian Automotive Trim, Inc.
Source Address: 601 N. Congress Avenue, Evansville, IN 47715
Mailing Address: P.O. Box 5109, Evansville, Indiana 47716-5109
Part 70 Permit No.: T163-6502-00017
Facility: Spray coating line H20
Parameter: Any single HAP/ Total HAP

Limit: (a) The any single HAP content delivered to the spray coating line H20 shall be limited to less than 85.24 tons per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of any single HAP content to less than 8.52 tons per twelve (12) consecutive month period.

(b) The total HAP content delivered to the spray coating line H20 shall be limited to less than 155.45 tons per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of total HAP content to less than 15.54 tons per twelve (12) consecutive month period.

YEAR: _____

Month	Column 1	Column 2	Column 3	Column 4	Column 1 + Column 3	Column 2 + Column 4
	Any Single Hap Usage This Month	Total Hap Usage This Month	Any Single Hap Usage Previous 11 Months	Total Hap Usage Previous 11 Months	Any Single Hap Usage 12 Month Total	Total Hap Usage 12 Month Total
Month 1						
Month 2						
Month 3						

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Conclusion

The operation of this new paint line and associated equipment shall be subject to the conditions of the attached proposed Significant Source Modification No. SSM163-12662-00017.

Appendix A: Emission Calculations

Company Name: Guardian Automotive Trim, Inc.
Address City IN Zip: 601 N. Congress Avenue, Evansville, IN 47715
Source Modification No. SSM163-12662-00017
Permit Reviewer: Phillip Ritz/EVP
Date: August 29, 2000

Uncontrolled Potential Emissions (tons/year)			
Emissions Generating Activity			
Pollutant	Natural Gas Combustion	high gloss and low gloss robotic spray coating line identified as H2O	TOTAL
PM	0.11	24.56	24.67
PM10	0.43	24.56	24.99
SO2	0.03	0.00	0.03
NOx	5.61	0.00	5.61
VOC	0.31	228.88	229.19
CO	4.71	0.00	4.71
total HAPs	0.00	155.45	155.45
worst case single HAP	0.00	(Methyl Isobutyl Ketone) 85.24	(Methyl Isobutyl Ketone) 85.24
Total emissions based on rated capacity at 8,760 hours/year.			
Controlled Potential Emissions (tons/year)			
Emissions Generating Activity			
Pollutant	Natural Gas Combustion	high gloss and low gloss robotic spray coating line identified as H2O	TOTAL
PM	0.11	0.25	0.36
PM10	0.43	0.25	0.68
SO2	0.03	0.00	0.03
NOx	5.61	0.00	5.61
VOC	0.31	22.89	23.20
CO	4.71	0.00	4.71
total HAPs	0.00	15.54	15.54
worst case single HAP	0.00	(Methyl Isobutyl Ketone) 8.52	(Methyl Isobutyl Ketone) 8.52
Total emissions based on rated capacity at 8,760 hours/year, after control.			

**Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

Page 2 of 4 TSD App A

Company Name: Guardian Automotive Trim, Inc.
Address City IN Zip: 601 N. Congress Avenue, Evansville, IN 47715
Source Modification No. SSM163-12662-00017
Permit Reviewer: Phillip Ritz/EVP
Date: August 29, 2000

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
HG20																
Color	8.4	57.00%	0.0%	57.0%	0.0%	43.00%	0.02300	270.000	4.79	4.79	29.73	713.60	130.23	24.56	11.13	75%
Clear	7.7	57.00%	0.0%	57.0%	0.0%	43.00%	0.02300	270.000	4.41	4.41	27.36	656.69	119.85	22.60	10.25	75%
Low Gloss	7.7	70.00%	0.0%	70.0%	0.0%	30.00%	0.03600	270.000	5.38	5.38	52.25	1254.11	228.88	24.52	17.92	75%

State Potential Emissions

Add worst case coating to all solvents

52.25

1254.11

228.88

24.56

Limit Usage:	Control Efficiency:		Controlled: VOC lbs per Hour	Controlled: VOC lbs per Day	Controlled: VOC tons per Year	Controlled: PM
VOC	VOC	PM				
0.00%	90.00%	99.00%	5.23	125.41	22.89	0.25

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Company Name: Guardian Automotive Trim, Inc.
Address City IN Zip: 601 N. Congress Avenue, Evansville, IN 47715
Source Modification No. SSM163-12662-00017
Permit Reviewer: Phillip Ritz/EVP
Date: August 29, 2000

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Hexamethylene Diisocyanate (HDI) Monomer	Weight % Ethyl Benzene	Weight % Methyl Ethyl Ketone	Weight % Methyl Isobutyl Ketone	Weight % Toluene	Xylene Emissions (ton/yr)	Hexamethylene Diisocyanate (HDI) Monomer Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Methyl Ethyl Ketone Emissions (ton/yr)	Methyl Isobutyl Ketone Emissions (ton/yr)	Toluene Emissions (ton/yr)
HG20															
Color	8.4	0.02300	270.000	1.50%	0.09%	0.09%	0.00%	0.00%	0.00%	3.43	0.21	0.21	0.00	0.00	0.00
Clear	7.7	0.02300	270.000	0.00%	0.08%	0.00%	8.46%	0.00%	0.00%	0.00	0.17	0.00	17.79	0.00	0.00
Low Gloss	7.7	0.03600	270.000	8.60%	0.00%	2.56%	7.69%	26.07%	2.56%	28.12	0.00	8.37	25.14	85.24	8.37

Total State Potential Emissions

28.12 0.21 8.37 25.14 85.24 8.37

Limit Usage:	Control Efficiency:	Controlled:	Controlled:	Controlled:	Controlled:	Controlled:	Controlled:
VOC	VOC	Xylene (ton/yr)	Hexamethylene Diisocyanate (HDI) Monomer (ton/yr)	Ethyl Benzene (ton/yr)	Methyl Ethyl Ketone (ton/yr)	Methyl Isobutyl Ketone (ton/yr)	Toluene (ton/yr)
0.00%	90.00%	2.81	0.02	0.84	2.51	8.52	0.84

15.54

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Page 4 of 4 TSD App A

Company Name: Guardian Automotive Trim, Inc.
Address City IN Zip: 601 N. Congress Avenue, Evansville, IN 47715
Source Modification No. SSM163-12662-00017
Permit Reviewer: Phillip Ritz/EVP
Date: August 29, 2000

Heat Input Capacity Potential Throughput
MMBtu/hr MMBtu/yr

12.8	112.1
2.0	mmBtu/hr Recuperative Thermal Oxidizer
3.8	mmBtu/hr Natural Gas Burners
2.5	mmBtu/hr Natural Gas Burners
1.5	mmBtu/hr Natural Gas Burners
1.0	mmBtu/hr Natural Gas Burners
2.0	mmBtu/hr Cure Oven

Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.11	0.43	0.03	5.61	0.31	4.71

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 2 for HAPs emissions calculations.